

Electromagnetic Propulsion Devices

Abstract

Electromagnetic propulsion devices including rail guns comprised of a barrel with cavity, two barrel rails parallel the cavity axis supplying power, armatures with a current carrying propulsion bus orthogonal the cavity axis, plurality of spaced, cavity axis orthogonal, barrel wall conductors distributed from breach to muzzle which are parallel armature propulsion bus in the cavity. There are forward and aft current shunt on the armature and possible armature current bus which when extant comprise one or the other or both a propulsion bus-aft shunt circuit means and an aft shunt-forward shunt circuit means. Said circuit means may be otherwise extant as additional barrel rail coacting with said shunts. The shunts and said circuit means direct the current through said wall conductors and the magnetic fields of said wall conductor currents interact with the armature propulsion bus current to propel or aid in propulsion of the armature in the cavity.